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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,193	02/19/2004	Jeffrey S. Pilgrim	70047-40-UT	6180
5179	7590	12/01/2006	EXAMINER	
PEACOCK MYERS, P.C. 201 THIRD STREET, N.W. SUITE 1340 ALBUQUERQUE, NM 87102			RODRIGUEZ, ARMANDO	
			ART UNIT	PAPER NUMBER
			2828	

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/783,193		PILGRIM ET AL.	
	Examiner		Art Unit	
	ARMANDO RODRIGUEZ		2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,7-14,17-19,21,27-34 and 37-39 is/are rejected.
- 7) ☒ Claim(s) 4-6, 15, 16, 20, 22-26, 35, 36 and 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed September 18, 2006 have been fully considered but they are not persuasive.

Applicant's argument on page 8 pertaining to the cited prior art of Papen et al teaching away from the amended claims, where the cited prior art discloses an array of lasers and the amended claims recite a single laser. The examiner does not agree with applicant's position of teaching away, because the specification of the cited prior art does not criticize, discredit or discourages the use of a single laser. Applicant's attention is directed to figure 7, where Papen et al discloses the use of a single laser to form a single channel transmitter. Thereby, a rejection based on the cited Papen et al prior art will be made final.

The objection to the drawings has been withdrawn based on applicant's amendment filed September 18, 2006.

The double patenting rejection has been withdrawn based on applicant's filing of a terminal disclaimer on September 18, 2006.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 7-14, 17-19, 21, 27-34, 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Papen et al (US 5,379,310).

Regarding claim 1, 21,

Figure 2 illustrates a tunable external cavity laser including laser diode array (12) [applicant's laser light], lens array (13) [applicant's collimating], curved mirror (18) [applicant's feedback mirror], column 5 lines 1-5 discloses varying the wavelengths [applicant's tuning].

Figure 2 does not illustrate a single laser.

Papen et al illustrates in figure 7 the use of a single laser diode (52).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the single laser of figure 7 with the external cavity of figure 2 because it would provide a single channel transmitter.

Regarding claim 7 and 27,

Figure 2 illustrates a curved mirror (18) [applicant's spherical mirror].

Regarding claim 8 and 28,

Column 5 lines 35-50, discloses the wavelength dependence on the radius of curvature, which includes the distance of the mirror with the diffraction grating.

Regarding claims 9 and 29,

Figure 2 illustrates all wavelengths reflected by the mirror.

Regarding claim 10 and 30,

Column 5 lines 23-35, discloses the lasing wavelength for each channel with respect to the grating, which implies bandwidth.

Regarding claims 11, 18 and 31, 38

Column 5 lines 18-22, discloses the cavity output as zeroth diffraction order.

Regarding claims 12 and 32,

Figure 2 illustrates the curved mirror in a plane of the diffraction grating.

Regarding claims 13, 14, 19 and 33, 34, 39,

Spectral resolution, mode spacing and gain are inherent characteristic of the cavity length (column 4 lines 64-66).

Regarding claims 17 and 37,

Figure 2 illustrates the curved mirror in a plane of the diffraction grating, which will be at a focus of the mirror.

Allowable Subject Matter

Claims 4-6, 15, 16, 20, 22-26, 35, 36 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ARMANDO RODRIGUEZ whose telephone number is 571-272-1952. The examiner can normally be reached on 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MINSUN HARVEY can be reached on 571-272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


ARMANDO RODRIGUEZ
Primary Examiner
Art Unit 2828

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